

Generic Setup for Fun and Profit

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Brooks' Second Law of Software Reuse

- Never mix mechanism with policy

Seaver's Law

- Persistence means always having to say you're sorry

Reuse Strategies in Zope

ZClass-based Products

- Configuration / software in ZODB
- Distributable, in a limited sense

Hybrid ZClass-Filesystem Products

- PTKBase / PTKDemo
- “Local” changes in the ZClass
- “Reusable” bits on the filesystem

Skinning

- CMF 1.0
- “Local” customizations overriding / shadowing distributed versions
- Either ZODB or filesystem based

Pluggable Tools

- Interface of the tool defines its behavior
- Change policy by replacing the tool with another implementing that interface

Configurable Tools

- Change policy by tweaking configuration of the tool
- Configuration back in the ZODB

Reproducible Configurations

- “Best practice”
- Enable remote collaboration
- See Chris' talk for the software part

“Declarative” Python

- FactoryTypeInfoInformation initializers
- Archetypes schemas

“Imperative” Python

- “Install.install” ExternalMethods
- SQL DDL
- “Bug magnet”

QuickInstaller

- Leverages the ExternalMethods
- Add / remove brilliant (when it works ;)
- Imperative => “bug magnet”

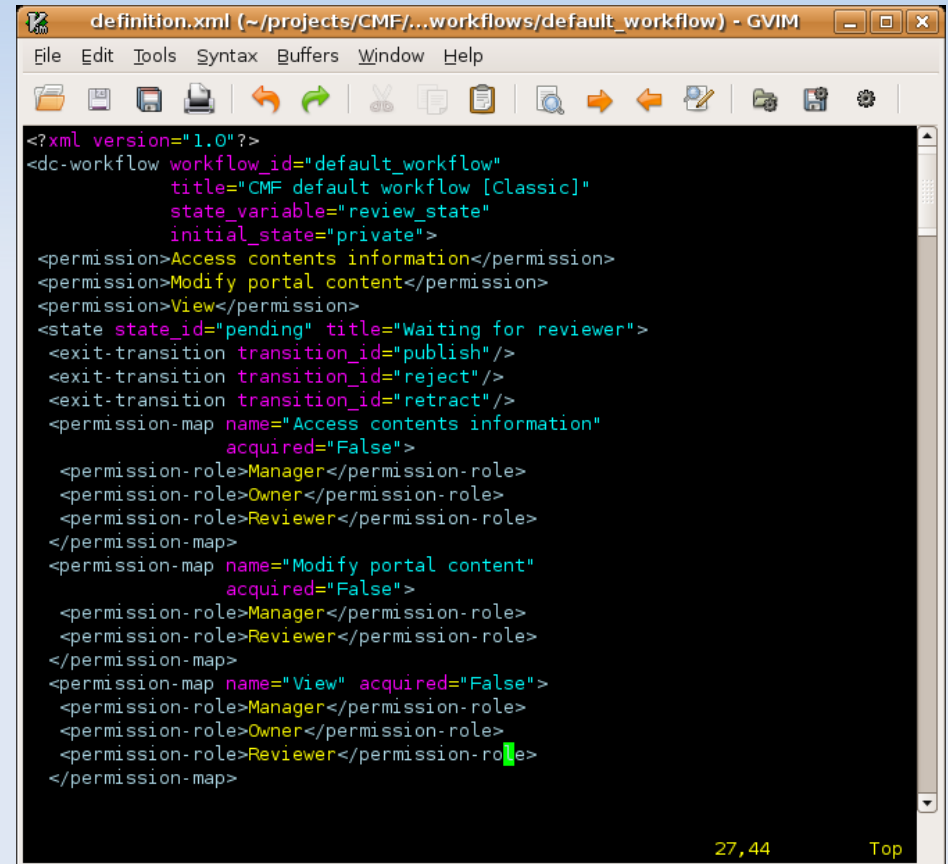
GenericSetup

- Serialize local configuration as data
- Bidirectional
- Adapter-based, therefore pluggable

Demo PAS Migration

Serialization

- Simple XML languages by default
- “Standard” properties automagic



```
definition.xml (~/projects/CMF/...workflows/default_workflow) - GVIM
File Edit Tools Syntax Buffers Window Help
[Icons]
<?xml version="1.0"?>
<dc-workflow workflow_id="default_workflow"
  title="CMF default workflow [Classic]"
  state_variable="review_state"
  initial_state="private">
  <permission>Access contents information</permission>
  <permission>Modify portal content</permission>
  <permission>View</permission>
  <state state_id="pending" title="Waiting for reviewer">
    <exit-transition transition_id="publish"/>
    <exit-transition transition_id="reject"/>
    <exit-transition transition_id="retract"/>
    <permission-map name="Access contents information"
      acquired="False">
      <permission-role>Manager</permission-role>
      <permission-role>Owner</permission-role>
      <permission-role>Reviewer</permission-role>
    </permission-map>
    <permission-map name="Modify portal content"
      acquired="False">
      <permission-role>Manager</permission-role>
      <permission-role>Reviewer</permission-role>
    </permission-map>
    <permission-map name="View" acquired="False">
      <permission-role>Manager</permission-role>
      <permission-role>Owner</permission-role>
      <permission-role>Reviewer</permission-role>
    </permission-map>
  </state>
</dc-workflow>
```

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Setup Profiles

- Declared as Steps
- Defined in Handlers
- Stored in Contexts

Setup Steps

- Discrete “kind” of configuration
- Skins tool
- Types tool
- Actions

Handlers

- Plugins for extensibility
- Registered to steps in “meta profile”

Setup Contexts

- Abstract interface for reading / writing files
- Filesystem directory
- Tarball / Zipfile
- ZODB folders

Profile Types

- Baseline Profiles
- Extension Profiles
- “Delta” Profiles

GS for Site Managers

- Snapshots
- Comparisons
- Migration

GS for Integrators

- Ship “canned” configurations as products
- Plone4Artists, e.g.

GS for Developers

- Tool provides framework for “interesting” extensions
- Demo CMFFolderExport

Future Directions

- Complete “delta” profiles
- Improve integration with QuickInstaller
- Manage Archetypes schemas TTW?

Q & A

- Tres Seaver, tseaver@agendaless.com
- GenericSetup SVN,
<http://svn.zope.org/GenericSetup>
- CMFFolderExport home,
<http://palladion.com/home/tseaver/software/CMFFolderExport>